IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.(Currently Amended) A diversity receiver comprising a first receiving branch ~~(10; 110)~~ having associated thereto a first antenna element ~~(12;112)~~ and at least a second receiving branch ~~(14;114)~~ having associated thereto a second antenna element ~~(16; 116)~~, the diversity receiver comprising first means ~~(18; 180)~~ for obtaining from a first signal ~~(20; 120)~~ on the first receiving branch ~~(10; 110)~~ and a second signal ~~(22; 122)~~ on the second receiving branch ~~(14; 114)~~ a third signal ~~(24; 124)~~ representing an estimation of ~~the~~ a spatial derivative of at least one receiving channel parameter, wherein the third signal ~~(24; 124)~~ is used to cancel or at least reduce signal distortions that occur due to time-variations of the receiving channel.

2.(Currently Amended) The diversity receiver according to claim 1, wherein the first antenna element ~~(12; 112)~~ and the second antenna element ~~(16; 116)~~ are closely spaced and arranged behind each other in the direction of motion (v) of the diversity receiver.

3.(Currently Amended) The diversity receiver according to claim 1, wherein the first means ~~(18; 118)~~ obtain the third signal ~~(24; 124)~~ as a difference between the first signal ~~(20; 120)~~ and the second signal ~~(22; 122)~~.

4.(Currently Amended) The diversity receiver according to claim 1, wherein the third signal ~~(24; 124)~~ is interpreted as a temporal derivative of the at least one receiving channel parameter, at least when the diversity receiver is moved.

5.(Currently Amended) The diversity receiver according to claim 1, further comprising:

[[-]] second means ~~(26, 28, 30, 32; 126, 128, 130)~~ for processing the third signal ~~(24; 124)~~ to obtain a fourth signal

~~(34; 134)~~;

[[-]] third means ~~(36; 136)~~ for processing the first signal ~~(20; 230)~~ to obtain a fifth signal ~~(38; 138)~~; and

[[-]] fourth means ~~(40; 140)~~ for combining the fourth signal ~~(34; 134)~~ and the fifth signal ~~(38; 138)~~ to obtain an output signal ~~(r(t); H0S)~~.

6. (Currently Amended) The diversity receiver according to claim 5, wherein one or more of the first means ~~(18; 118)~~, the second means ~~(26, 28, 30, 32; 126, 128, 130)~~, the third means ~~(36; 136)~~, and the fourth means ~~(40; 140)~~ are fully or in part realized by hardware interacting with software or by discrete components.

7. (Currently Amended) The diversity receiver according to claim 5, wherein the second means ~~(26, 28, 30, 32; 126, 128, 130)~~ perform one or more of the following functions: filtering, sampling, A/D-conversion, serial-to-parallel conversion, multiplying with a ramp function, (Fast) Fourier Transforming, multiplying with a crosstalk matrix, and signal weighting.

8.(Currently Amended) The diversity receiver according to claim 5, wherein the second means ~~(26, 28, 30, 32; 126, 128, 130)~~ perform a signal weighting function comprising a multiplication with a weighting factor (α; d/v) controlled to minimize the signal distortions.

9.(Currently Amended) The diversity receiver according to claim 5, wherein the third means ~~(36; 136)~~ perform one or more of the following functions: filtering, sampling, A/D-conversion, serial-to-parallel conversion, and (Fast) Fourier Transforming.

10.(Original) The diversity receiver according to claim 1, wherein the at least one receiving channel parameter is a receiving channel transfer function.

11.(Currently Amended) The diversity receiver according to claim 1, wherein for creating a virtual third antenna element there are provided switching means ~~(42)~~ for switching from a signal on the first receiving branch ~~(10)~~ to a corresponding signal on the second receiving branch ~~(14)~~.

12.(Currently Amended) The diversity receiver according to claim 1, wherein the first antenna element ~~(12)~~ and the second antenna element ~~(16)~~ are arranged in parallel but extend in different directions.

13.(Original) The diversity receiver according to claim 1, wherein the diversity receiver is adapted to be used in one or more of the following systems: Orthogonal Frequency Division Multiplexing (OFDM) systems, Digital Audio Broadcasting (DAB) systems, Digital Video Broadband (DVB) systems, for example DVB-T systems, Digital Terrestrial Television Broadcasting (DTTB) systems, Code Division Multiple Access (CDMA) systems, for example cellular CDMA systems, Universal Mobile Telecommunications Systems (UMTS), the Global System for Mobile communications (GSM), Digital Enhanced Cordless Telecommunication (DECT) systems, wireless local area network systems, for example according to the standard 802.11a, 802.11g, or HIPERLAN II.

14.(Currently Amended) A method for canceling or at least

reducing signal distortions of a radio signal received by a moving diversity receiver, ~~especially a moving diversity receiver according to claim 1,~~ wherein the signal distortions occur due to time-variations of a receiving channel in a radio system, said method comprising the following ~~steps~~ acts of:

[[-]] receiving the radio signal at two ~~closely spaced~~ positions differing in the direction of motion;

[[-]] estimating ~~the~~ a spatial derivative of at least one receiving channel parameter ~~on the basis of~~ based on the radio signal received at the two positions;

[[-]] interpreting the spatial derivative of the at least one receiving channel parameter as ~~the~~ a temporal derivative of the at least one receiving channel parameter; and

[[-]] exploiting the temporal derivative of the at least one receiving channel parameter to cancel or at least reduce the signal distortions.

15. (Currently Amended) The method according to claim 14, wherein the ~~step~~ act of estimating the spatial derivative comprises calculating a difference between the radio signal received at a

first position of said two closely spaced positions and the radio signal received at a second position of said two closely spaced positions.

16. (Currently Amended) A computer ~~program stored on a record carrier or made available for download, said computer program being adapted to carry out the following method~~ readable medium embodying a computer program, comprising instructions for canceling or at least reducing signal distortions of a radio signal received by a moving diversity receiver, the instructions when executed by a processor are configured for:

[[-]] estimating, ~~on the basis of a~~ based on the radio signal received at two ~~closely spaced~~ positions differing in ~~the~~ a direction of motion of the moving diversity receiver, ~~the~~ a spatial derivative of at least one receiving channel parameter;

[[-]] interpreting the spatial derivative of the at least one receiving channel parameter as the temporal derivative of the at least one receiving channel parameter; and

[[-]] exploiting the temporal derivative of the at least one receiving channel parameter to cancel or at least reduce the

signal distortions.

Claim 17 (Canceled)

18.(New) A diversity receiver comprising:

a first antenna configured to receive a first signal on a receiving channel;

a second antenna configured to receive a second signal on the receiving channel; and

a combiner configured to form a third signal from the first signal and the second signal;

wherein the third signal represents an estimation of a spatial derivative of at least one receiving channel parameter, wherein the third signal is used to reduce signal distortions that occur due to time-variations of the receiving channel.

19.(New) The diversity receiver of claim 18, wherein the combiner is configured to form the third signal from the first signal and a difference signal, the difference signal being a difference between the first signal and the second signal.

20.(New) The diversity receiver of claim 19, further comprising a weighting unit configured to multiply the difference signal with a factor that depends on at least one a speed of the diversity receiver and a distance between the first antenna and the second antenna.

21.(New) The diversity receiver of claim 19, further comprising a decorrelator configured to decorrelate the difference signal and the third signal and compute a weighting factor for weighting the difference signal.

22.(New) The diversity receiver of claim 19, further comprising a multiplier configured to multiply the difference signal with a linearly increasing ramp function.